

## Picatinny Arsenal New Jersey

The United States Army Armament Research, Development and Engineering Center (ARDEC), occupies 6,500 acres and is headquartered at the Picatinny Arsenal in northwest New Jersey. ARDEC is one of the U.S. Army's principal resources for researching, developing and sustaining current and future military armaments systems, with particular focus on developing and improving the technical capabilities of U.S. service members fighting the global war on terrorism.



The Homeland Defense (HLD) Division of the Armaments Engineering and Technology Center, ARDEC, recently developed and constructed a Testbed Emergency Operations Center (EOC). This multi-functional facility was designed to research and develop initiatives such as testing military systems and examining how they can be transitioned to support public safety efforts, modeling and simulation of systems and applications, as well as a potential backup Emergency Operations Center for partnering agencies as necessary.

Crestron systems were installed to control lighting, HVAC, audio and video distribution, CCTV and presentation cameras, and video teleconferencing (VTC) in the new Testbed facility. This 7000+ square foot space will be the setting for a wide variety of activities, including software development and training. Objectives and efforts will be driven in conjunction with our internal clients and those from other federal, local, and private agencies.

The system was designed in 2003, and implemented in a phased approach by Dynamic Technology Systems, Incorporated (DTS) based in Alexandria, VA. The facility has 87 zones of lighting, 16 zones of audio, video and RGB distribution systems over CAT5 that include 400 LAN drops, and Crestron QuickMedia™ transport technology for distribution, preview of all NTSC sources and 38 computers and access control, which will include biometrics.

The facility is controlled from 18 touchpanels and 17 keypads throughout the facility, and Crestron XPanel Web browser-based control and RoomView® multi-user software (for global room scheduling, monitoring, controlling, and reporting of resources and systems), is slated to be installed during the next operational level phase.

Upon completion, the facility will have 17 rooms under Crestron control, including the visually stunning two-story Testbed EOC, which has two rows of workstations to accommodate approximately 40 people, facing a 13' high, 33' wide video wall. Within the Testbed EOC, both classified and non-classified video conferencing and command and control activities will take place, as well as presentations and briefings.

Being able to grow with technology and maintain a state-of-the-art status is a very important feature to those who are responsible for the Testbed EOC Facility. "One thing we always intended was to be a showcase for technology, and much more than a 'lights on lights off' type of operation," said Tom Sroka, Project Manager EOC Facility. "Instead of an overhead projector screen, we went with a video wall. For our lighting, we took a theatrical approach that called for zoning and dimming, and the need for that flexibility is what drove me to Crestron.

I wanted to try different things because this is, after all, a testbed," Sroka continued. "With the help of DTS, we explored different vendors and sought the best answer for the challenge created by the variety of customers and applications we will have here. We had to make some assumptions and say, OK, here are probably our most typical two or three scenarios, let's go from there. With Crestron we can always go back and change things later, as our customer base develops."

"We think it's very important to attain the kind of partnerships where we can test the next level of technology for our multi-faceted environment, and then teach it to everyone else, to show them how it can make their jobs easier,"



added Jackie Barnum, Assistant Project Manager EOC Facility. "When we partner with an organization our goal is to find the smarter approach. We don't endorse any products whatsoever, but we share our experiences. In particular, the public safety sector is moving towards a more automated environment, but it needs guidance, and that's a big part of what we're here

to provide.” When Barnum refers to “multi-faceted,” she is speaking about not only the command and control operations but also the training and joint efforts with other agencies.

The primary mission of the testbed is to take technologies that the Army has developed, hone them and use them as tools to achieve better operations for information and data sharing as well as situational awareness. The end goal is to bridge the gap between homeland defense, which is the military support and response to domestic crises (war or a natural event), military support civil authorities, and homeland security, which is at the local and state level – everything from the first responder up to a state operations center/office of emergency management.

More often than not, the people that will be coming into the facility will not be familiar with it, since they will be there specifically for training exercises. The simple preset buttons on the Crestron touchpanels provide one-touch features for video teleconferencing (VTC), full light and presentation mode.

“We took some very complex systems including the AV, lighting, VTC, the video wall and all the associated presets and used Crestron technology and touchpanels to interconnect the multiple systems to achieve a ‘super remote’ that anyone can use,” said James Cudney, Director AV/IT Systems Division, DTS.



The facility has external input boxes that do not require running cable or wire back to the main equipment cabinet, setting up a kind of firewall that prevents one room from affecting another. The infrastructure LAN server room (control room) is off limits to everyone except the in-house technical administrators. For example, a guest server room is used when someone is coming in to do an experiment. It is where they put their servers and PCs, and then bridge over to the Picatinny infrastructure.

With multiple modules and lighting zones, the facility is designed so that a conference room can become an autonomous unit and, from an IT perspective, be segregated from the LAN. From a programming perspective, video signals that are generated in one area can still be distributed anywhere in the facility.

“I’m especially looking forward to having XPanel hooked up and RoomView® installed,” commented Sroka. “I ran an ops center years ago in DC, and I was the person called at 2, 3 in the morning to come in and warm up the place, turn everything on and get the systems up and running. It will be great when I can do that remotely, or have it pre-programmed with a product like RoomView.”

“Being a former support person, I always made sure that I treated my customers fairly and with a lot of truth and honesty, and that’s what we look for here,” concluded Barnum. “Whether it’s a Crestron engineer, salesperson, or support person, they’ve been extremely responsive, and that’s very important to us.”

ARDEC became the first Department of Defense organization in history selected to receive the prestigious Malcolm Baldrige National Quality Award, which is presented annually to a small group of elite businesses and organizations deemed to have world-class performance excellence and quality achievement practices. The award is the nation’s top prize for performance management and quality achievement. Leadership, strategic planning, customer and market focus, information and analysis, human resource focus, process management and business results are among the criteria for the award.

### About Dynamic Technology Systems, Incorporated (DTS)

DTS is a service-disabled, veteran-owned small business specializing in command and control, executive boardrooms and conference centers in both classified and unclassified environments. DTS also provides master integrator services for lighting, electrical, acoustics, and AV systems, both design and build. For more information: [www.dts-inc.com](http://www.dts-inc.com).